The quantity "administered varied from 40 grains to 160 grains per diem, according to the severity of the symptoms and age of the patient; but after a little experience of the effects of chloral, it seemed to me that it had no specific influence over the tetanic spasms; nevertheless, there can be no doubt that even in the most severe cases of tetanus this drug has the power of sending the patient off into a deep sleep, and thus for the time being of preventing the tetanic spasms; but in several instances it appeared as if the hydrate of chloral, by thus keeping back the tetanic energy, rendered it more concentrated; after deep sleep from chloral the spasms sometimes returning with such terrible violence as speedily to destroy the patient. Of the ten cases treated exclusively with chloral, seven were instances of traumatic tetanus, and only one of these recovered; two cases of idiopathic tetanus were thus treated—one of these recovered, as also did a case of the disease occurring fifteen days after childbirth. My experience thus far has led me therefore to conclude that I was hardly justified in trusting to the chloral alone in the treatment of severe cases of this disease; as an hypnotic it seemed invaluable, but we must, if possible, do something more than put our patients to sleep in the management of bad cases of tetanus; and although Calabar bean possesses an influence infinitely short of being a specific in this disease, nevertheless the extract of physostigma, if judiciously employed, has, I think, a salutary influence over some cases of tetanus."

The conclusions Mr. M. has formed as to the general prognosis are, with reference to the former, that "we should be mainly guided by the temperature of the patient's body; so long (I am referring to the natives of India) as the temperature of the body is below 100° F., I would give a favourable prognosis; and I would treat such a patient by giving as much milk and arrowroot as he could take, with a little wine and soup from time to time, and for an adult, 40 grains of hydrate of chloral at bedtime. If the temperature of the patient's body, however (especially in the morning), rises to 101°, there is danger to be apprehended; should the temperature rise suddenly from 99° or 100° to 102°, the patient is in imminent danger, and I have seen few cases of tetanus recover after the temperature of the body has risen to 103°. In these cases, however, we should resort to the extract of Calabar bean, and hydrate of chloral at bedtime, and we may do so with some hope of success, provided the temperature keeps under 103° and the muscles supplied from the spinal nerves are chiefly implicated; but if the muscles directly under the influence of the medulla are involved, and the temperature of the patient's body reaches 103° and upwards, we should relieve his terrible agony with hydrate of chloral, but can have but faint hopes of his recovery. After death from tetanus, the temperature of the body rises rapidly to about 107° F.

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53. *Drainage in Gunshot Wounds.*—Dr. CHRISTOT has recently published, in the *Lyon Médical,* a series of interesting papers on "Drainage in Gunshot Wounds," in which he illustrates by many detailed cases the great utility of this means under very unpromising circumstances. His general conclusions are—1. Drainage constitutes a valuable surgical procedure for warding off the accidents which ensue in gunshot wounds of the soft parts. It furnishes favourable results in those muscular and aponeurotic seton-wounds which are too often complicated by diffuse inflammation and extensive suppuration. By reason of the facilities which it affords for the discharge of pus and all kinds of septic liquors, it constitutes an excellent means of arresting traumatic fever, and of preventing or causing the disappearance of the accidents of septicæmia. Its application seems to be especially necessary in those cases in which the inflammatory action has been induced by the prolonged presence of foreign bodies amidst the tissues, such as projectiles, shreds of clothing, splinters, etc. 2. By the rapid limitation of the extent of the inflammation which drainage puts into force, it acts efficaciously in cases of diffuse suppurative periarthritis by protecting the endangered joint. In such cases it should be resorted to as speedily as possible. This, indeed, is one of the most important cases in which it can be employed. 3. In those cases in which gunshot wounds extend more deeply, and in which the bones or joints are implicated, drainage should be employed

with more reserve. It would seem to be insufficient to meet the formidable accidents of traumatic arthritis, and it is scarcely more efficacious in the cases in which the diaphyses of the bones are concerned. It is, perhaps, more hurtful than useful wherever the injury implicates a medullary cavity of the first rank (as in the diaphyses of the femur, humerus, and tibia), for the elastic tube which is so well borne by the soft parts becomes an agent of irritation all the more dangerous, as in the osseous system the phenomena of inflammation or absorption present special conditions which only explain too well the serious general complications that result. Drainage resumes all its efficacy in injuries of the skeleton of the extremities (as in the hands and feet, wrist and instep), whatever may be their extent or multiplicity.—*Med. Times and Gaz.*, Sept. 2, 1870.

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54. *M. Guérin's New Method of Dressing Wounds.*—M. GUERIN, being struck with the dust and germ theory of disease as advanced by Pasteur and Tyndall, was led to employ a new mode of dressing wounds founded on these doctrines. With this view he applies to wounds a thick covering of cotton so as to prevent by filtration the access to them of the dust and germs floating in the atmosphere. His mode is as follows: In dressing a stump, for example, he wraps it round and round with successive layers of cotton. A liberal use of the substance must be made, and several yards of cotton-wool successively disappear around the limb. It is quite obvious—to speak in the words of the surgeon of St. Louis—that the thick interposition of clothing is requisite to filter the air before it reaches the wound. It is not the less necessary to extend this dressing in all the directions of the limb, as foul or unfiltered air might find its way to the injured part. Thus, in amputation of the thigh, thick layers of cotton-wool are carried up to the hip and around the waist and the nates, so that all the approaches to the wound are carefully guarded in every direction. Coupled with this, M. Guérin exerts a gentle pressure over all the inclosed parts by means of ordinary cotton bands—a point to which he attaches great importance, as it enables him to tighten the whole appliance and to keep the parts snugly together.

This constitutes the entire proceeding. It may be observed that M. Guérin does not use carbolic acid in any way whatever. The wound is simply washed with camphorated alcohol after the operation. The surgeon's hands, the sponges, and instruments undergo no kind of preparation before the operation. The cotton-wool and cotton bands are steeped in no fluid.

M. Guérin lays great stress on the importance of carefully watching this dressing, which, it is interesting to observe, is intended to be a permanent one. He watches the dressing day by day, and never takes it off unless some extraordinary circumstance occurs, but contents himself with adding fresh layers of cotton-wool if he observes that it is in any way disturbed in such a manner as to permit of the introduction of unfiltered air into the wound. Thus the dressing may remain *in situ*, and does so in the great majority of cases, for twenty-five or thirty days. On removing the dressing after this lapse of time a healthy granulating surface is discovered, and half a wineglassful of healthy pus is found within the folds of the cotton. It may here be stated that M. Guérin, on applying a first dressing, stuffs up the stump with cotton-wool, which he introduces beneath the flaps. The process of granulation gradually drives out the cotton, and cicatrization takes place perfectly. Moreover, this mode of dressing may be applied, and has been with great success, to extensively abraded and burnt surfaces.—*Lancet*, Sept. 2, 1871.

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55. *Transverse Rupture of the Trachea.*—Dr. LAUENSTEIN relates the case of a soldier who received a kick from a horse on the anterior part of the throat, by which he was thrown upon the ground in a state of stupor. There was a contused wound of the jaw, three-quarters of an inch long and extending to the bone. This wound was secured by suture. The pulse was greatly accelerated, and at every respiration tracheal râles were heard. There was, also, cough, but without bloody sputa. A more careful examination detected the presence of tolerably extensive emphysema of the neck. From these